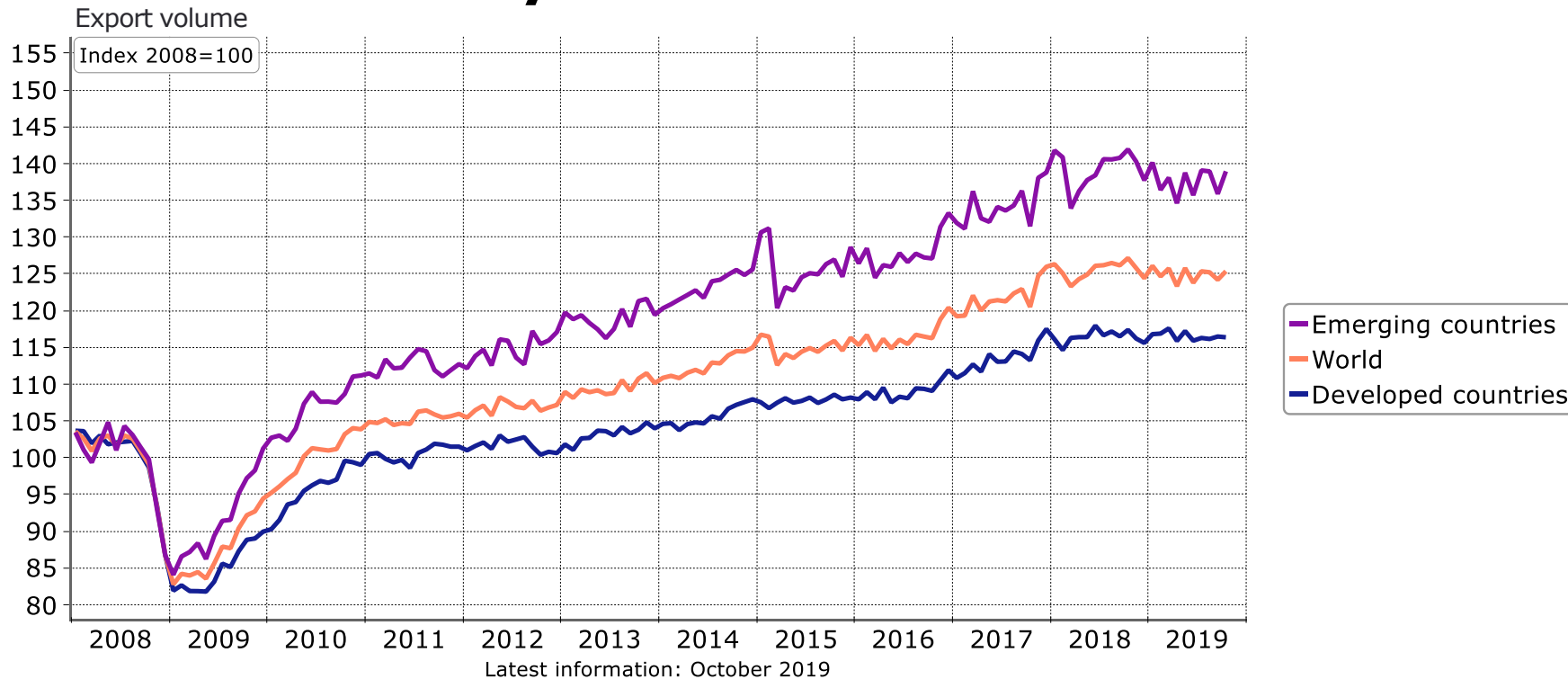


# Growth of World trade has been Stagnated Almost Two Years Already



# Eurozone Manufacturing Purchasing Managers' Index Indicates that Production is Contracting in Near Future



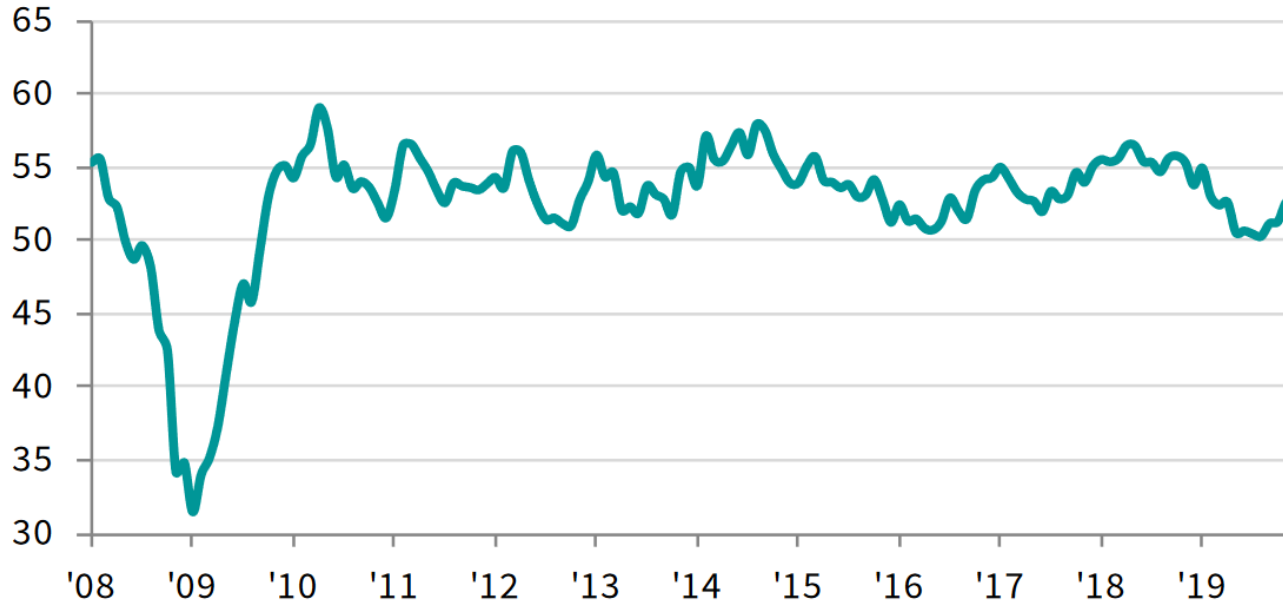
Eurozone Manufacturing PMI, sa, 50 = no change



# Based on Purchasing Managers' Index Outlook in US Manufacturing has Improved Slightly



sa, >50 = improvement since previous month

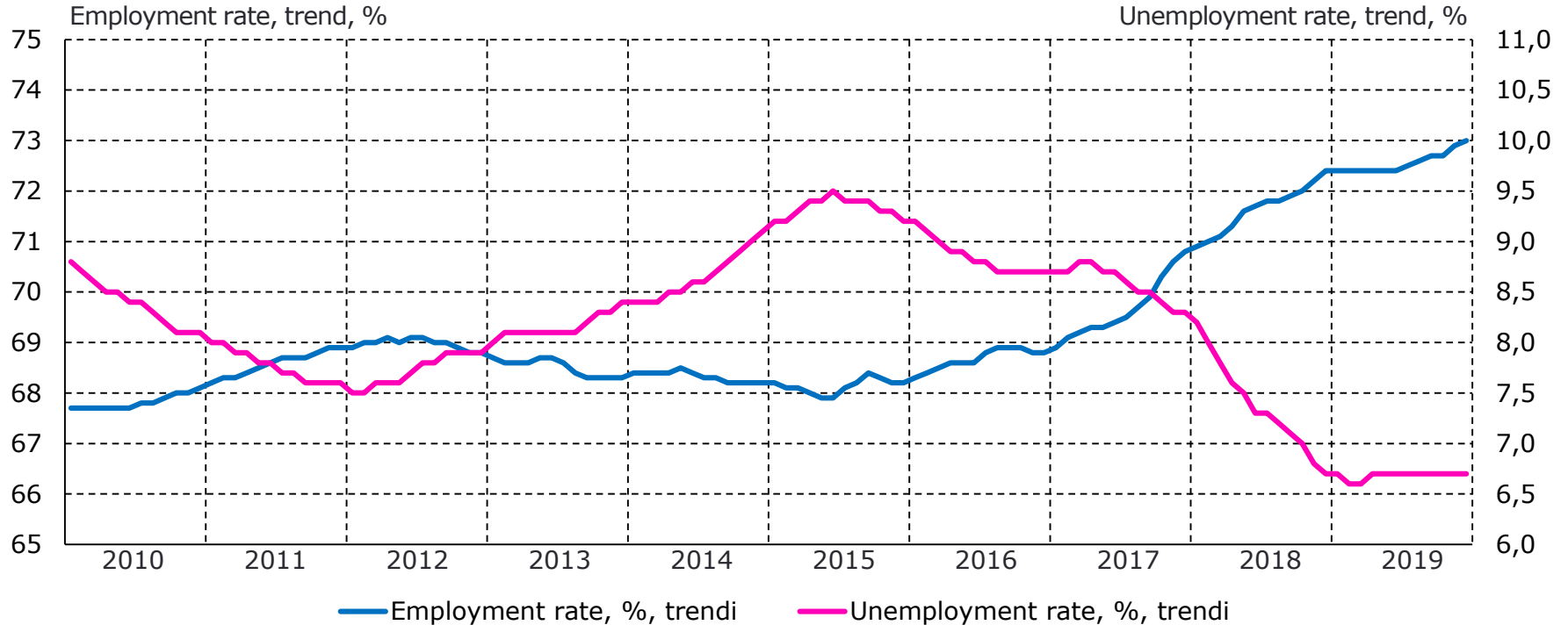


# Economic Forecasts for Finland

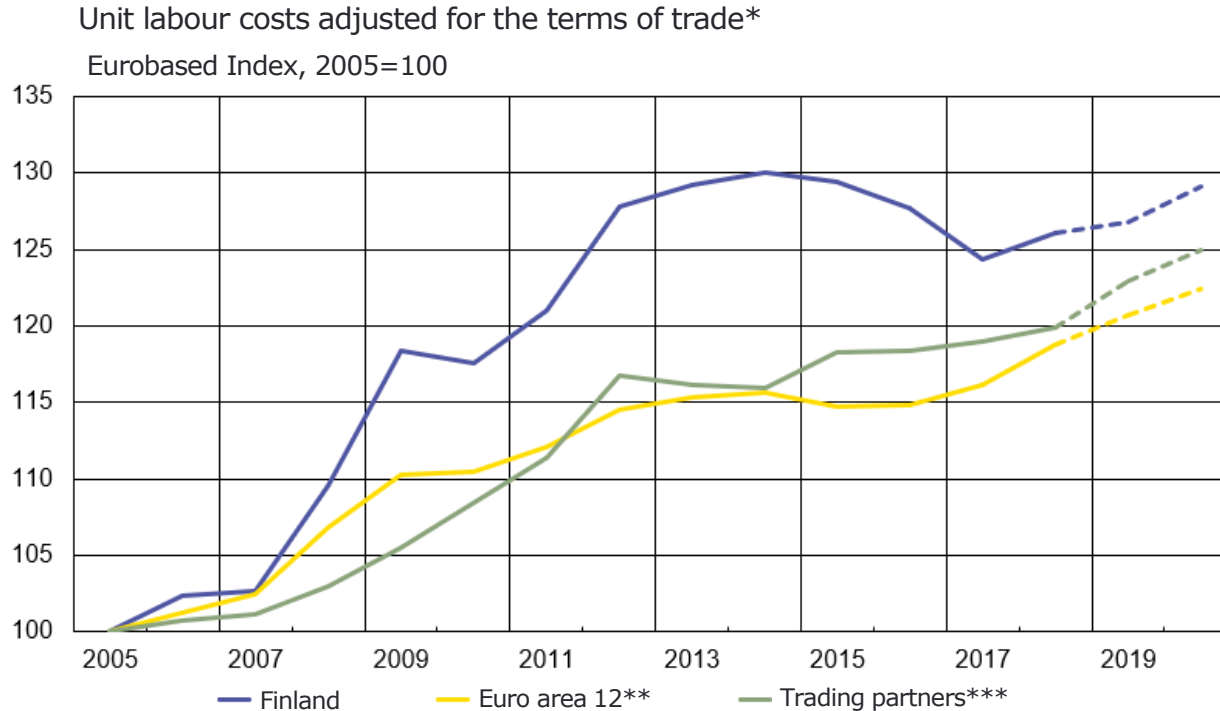


Forecaster	Date	Change in GDP, %			Change in private Consumption, %		Change in Exports, %		Change in Investments, %		Inflation, % *		Unemployment rate, %	
		2018	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
<b>Danske Bank</b>	24.9.2019	1,7	1,2	0,8	0,8	1,0	3,5	1,5	0,5	0,6	1,1	1,4	6,6	6,6
	<b>Nordea</b> 4.9.2019	1,7	1,2	1,0	1,0	1,4	3,0	1,0	0,5	0,1	1,1	1,3	6,4	6,4
<b>OP-Pohjola</b>	19.11.2019	1,7	1,4	0,5	1,0	0,8	3,0	0,5	1,5	0,6	1,0	1,2	6,5	6,5
<b>Ministry of Finance</b>	7.10.2019	1,7	1,5	1,0	1,7	1,4	2,4	2,4	0,4	-0,3	1,1	1,4	6,5	6,3
<b>Bank of Finland</b>	17.12.2019	1,7	1,3	0,9	0,7	1,3	4,0	0,9	1,1	0,7	1,1	1,2	6,7	6,7
<b>ETLA</b>	16.9.2019	1,7	1,1	0,9	0,7	1,1	3,8	1,3	1,4	0,8	1,1	1,1	6,5	6,3
<b>PTT</b>	12.9.2019	1,7	1,3	1,2	1,2	1,0	2,5	1,5	0,6	0,5	1,0	1,0	6,6	6,9
<b>PT</b>	17.9.2019	1,7	1,3	1,1	1,0	0,9	4,0	2,0	1,4	-1,0	1,1	1,0	6,6	6,7
<b>European commission</b>	7.11.2019	1,7	1,4	1,1	0,6	1,1	1,9	2,2	0,7	0,4	1,2	1,4	6,7	6,5
<b>IMF</b>	15.10.2019	1,7	1,2	1,5			3,1	2,2			1,2	1,3	6,5	6,4
<b>Average</b>		1,7	1,3	1,0	1,0	1,1	3,1	1,6	0,9	0,3	1,1	1,2	6,6	6,5

# Improvement of Employment has been Sluggish



# Cost Competitiveness has Improved in Finland but We are Still Lagging Behind Competitors



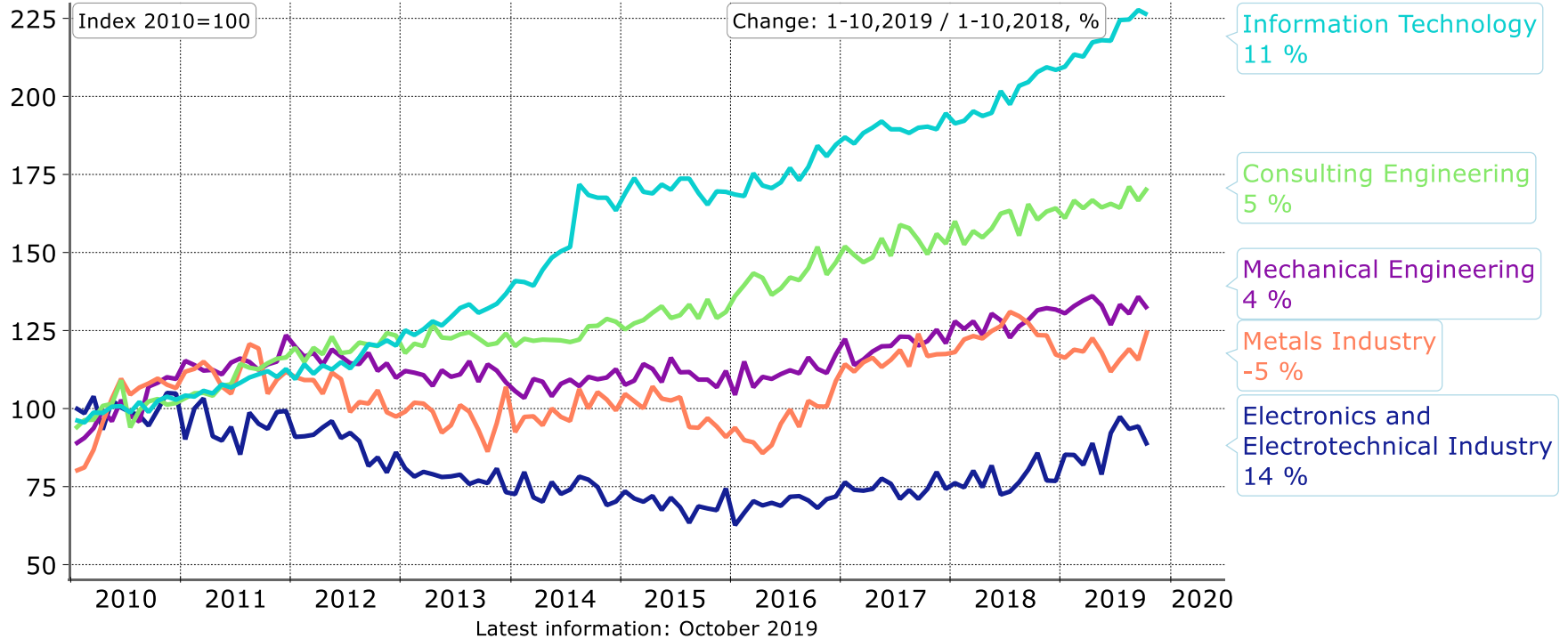
\*) Labour compensation relative to real national income.

\*\*\*) First 12 euro area member states. \*\*\*) 14 traditional industrial countries.

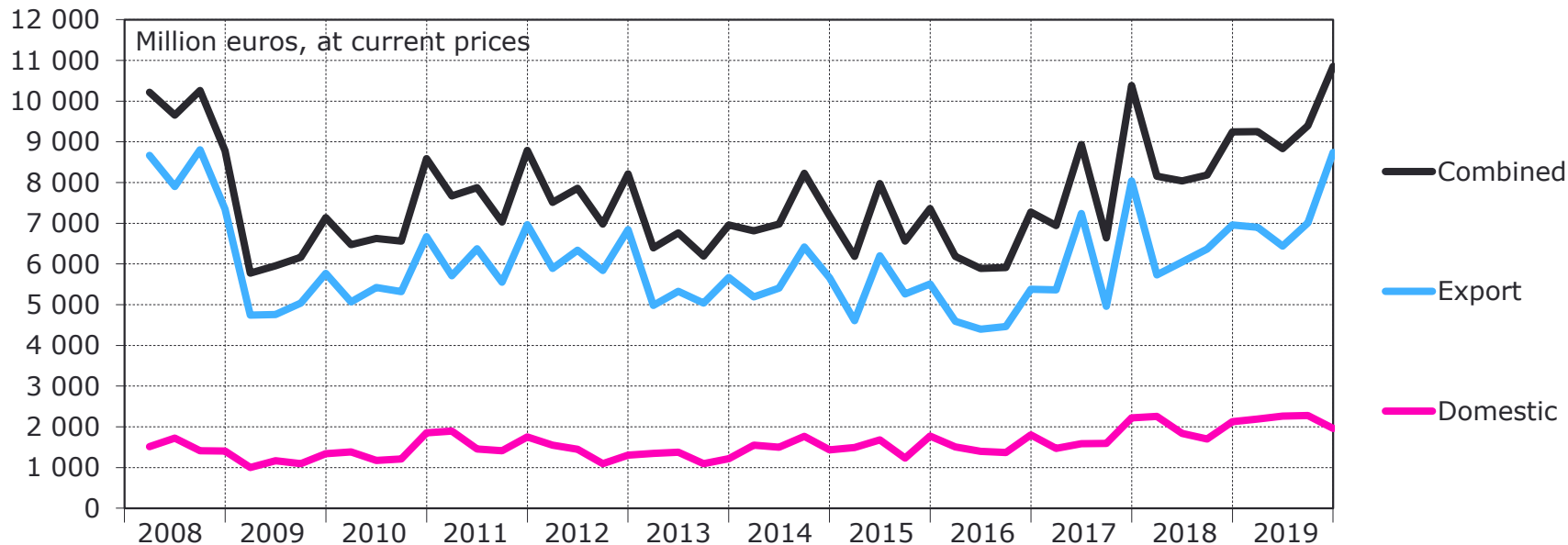
Forecasts: Bank of Finland (Finland) and European Commission (other countries)

Sources: Statistics Finland, Bank of Finland and European Commission

# Turnover of the Technology Industry in Finland



# Value of New Orders in the Technology Industry\* in Finland

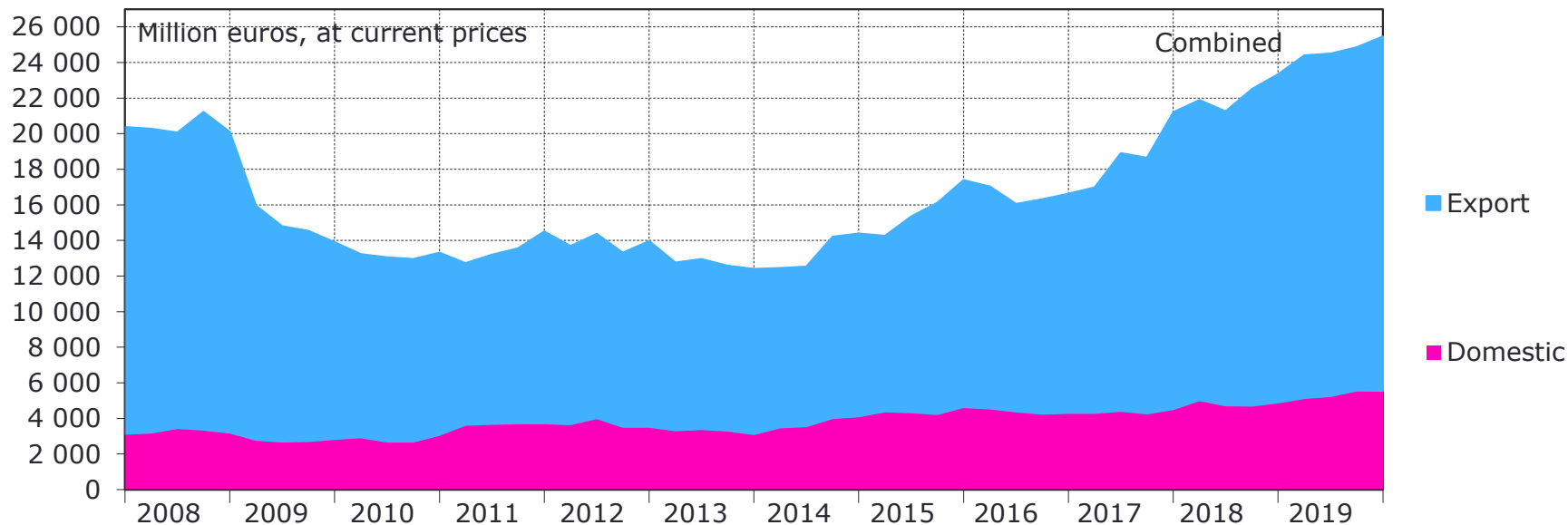


Change:	IV/2019 / IV,2018	IV,2019 / III,2019
Export:	+26 %	+25 %
Domestic:	-8 %	-14 %
Combined:	+17 %	+15 %

\*) Excl. metals industry, game industry and data center companies



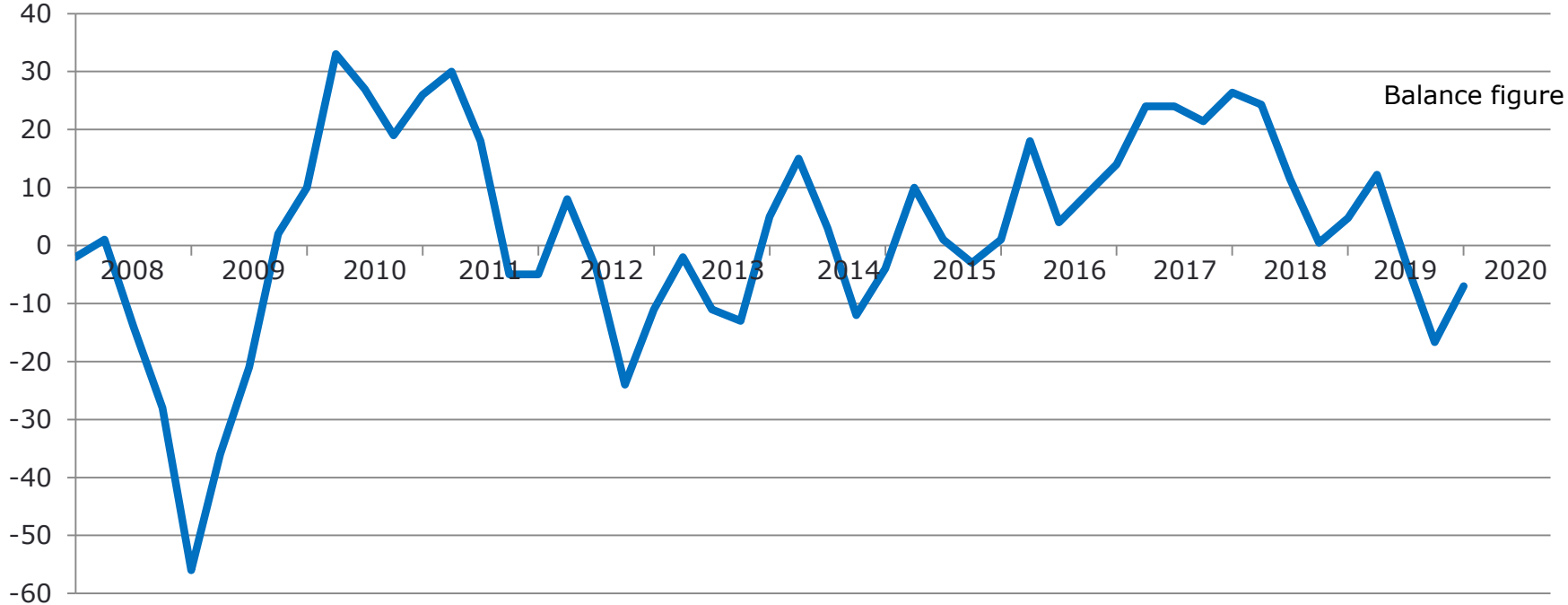
# Value of Order Books in the Technology Industry\* in Finland



Change:	31.12.2019 / 31.12.2018	31.12.2019 / 30.9.2019
Export:	+8 %	+3 %
Domestic:	+13 %	0 %
Combined:	+9 %	+2 %

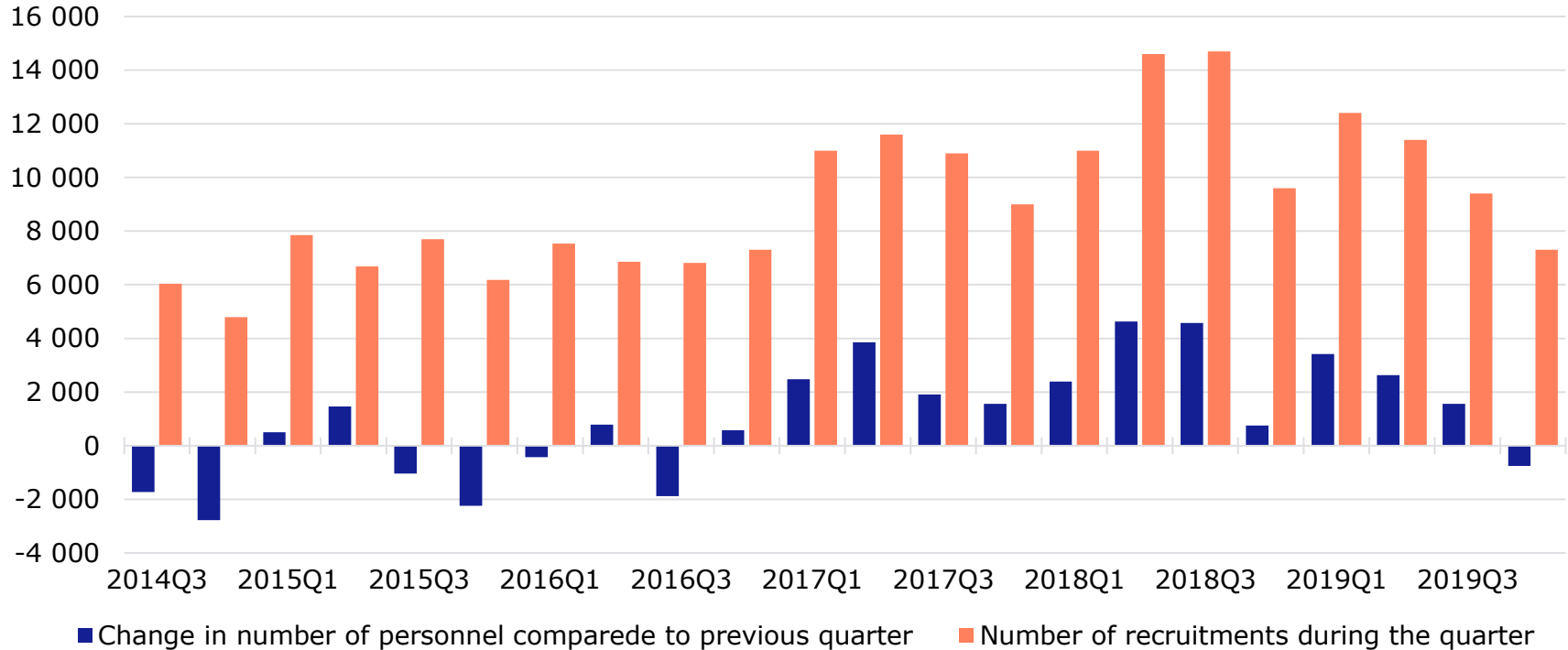
\*) Excl. metals industry, game industry and data center companies

# Tender Requests\* Received by the Technology Industry Companies in Finland

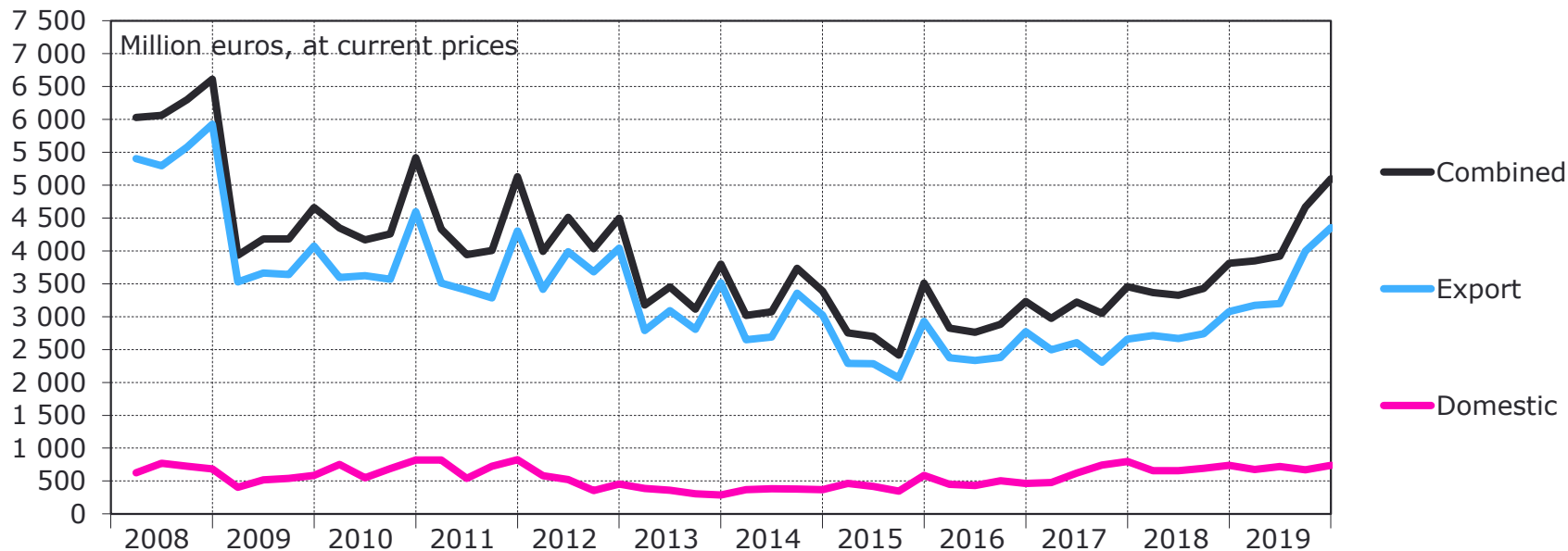


\*) "Have you experienced a notable increase or decrease in the number of requests for tenders in recent weeks in comparison to the situation three months ago?". Balance figure = the number of companies receiving more requests - the number of companies receiving less requests."

# Number of Personnel in Finnish Technology Industry Declined for the Time since Q3 2016

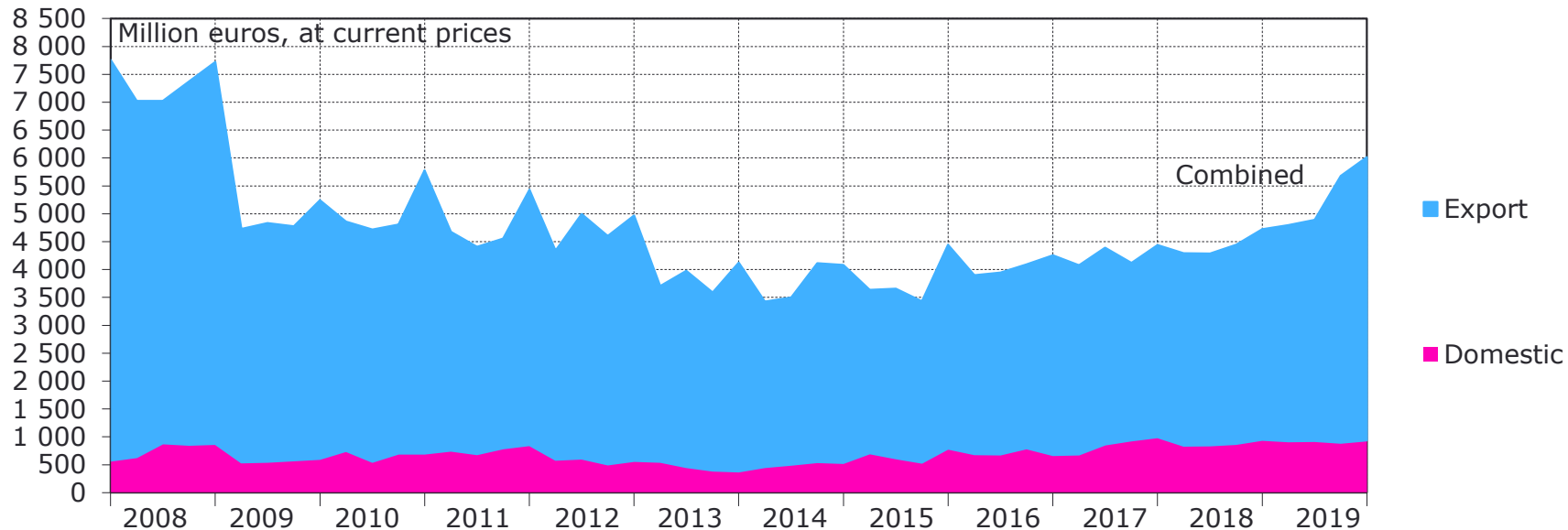


# Value of New Orders in the Electronics and Electrotechnical Industry in Finland



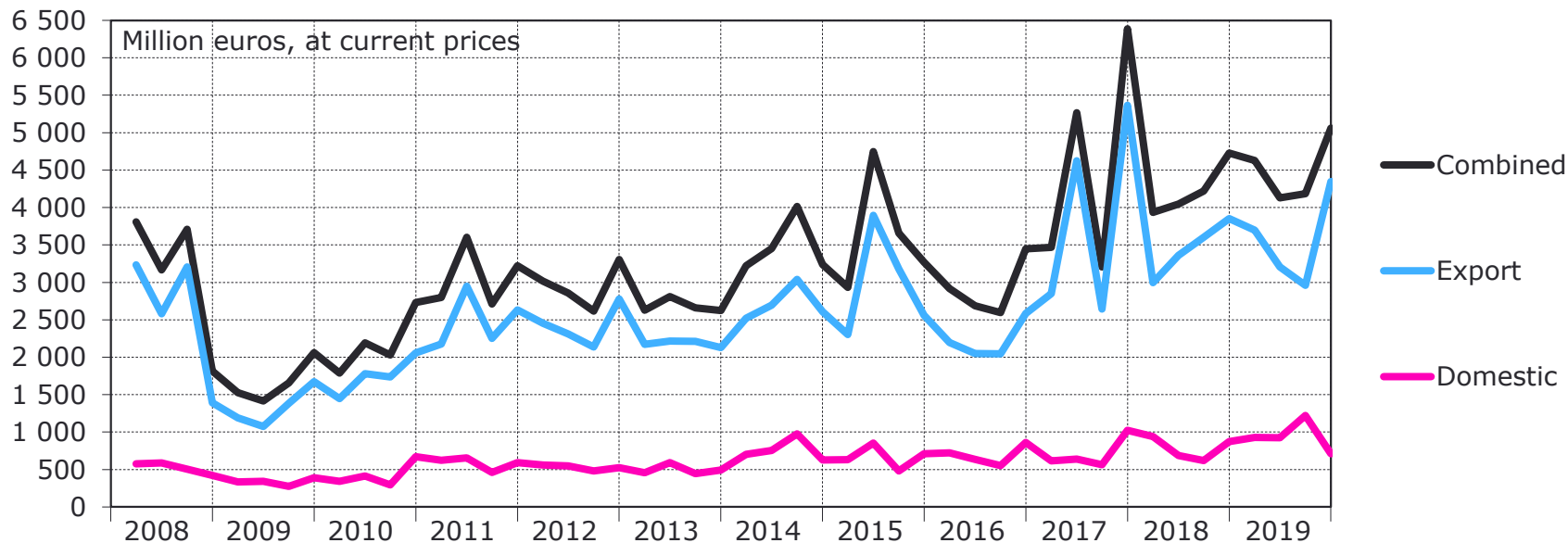
Change:	IV,2019 / IV,2018	IV,2019 / III,2019
Export:	+42 %	+9 %
Domestic:	+1 %	+10 %
Combined:	+34 %	+9 %

# Value of Order Books in the Electronics and Electrotechnical Industry in Finland



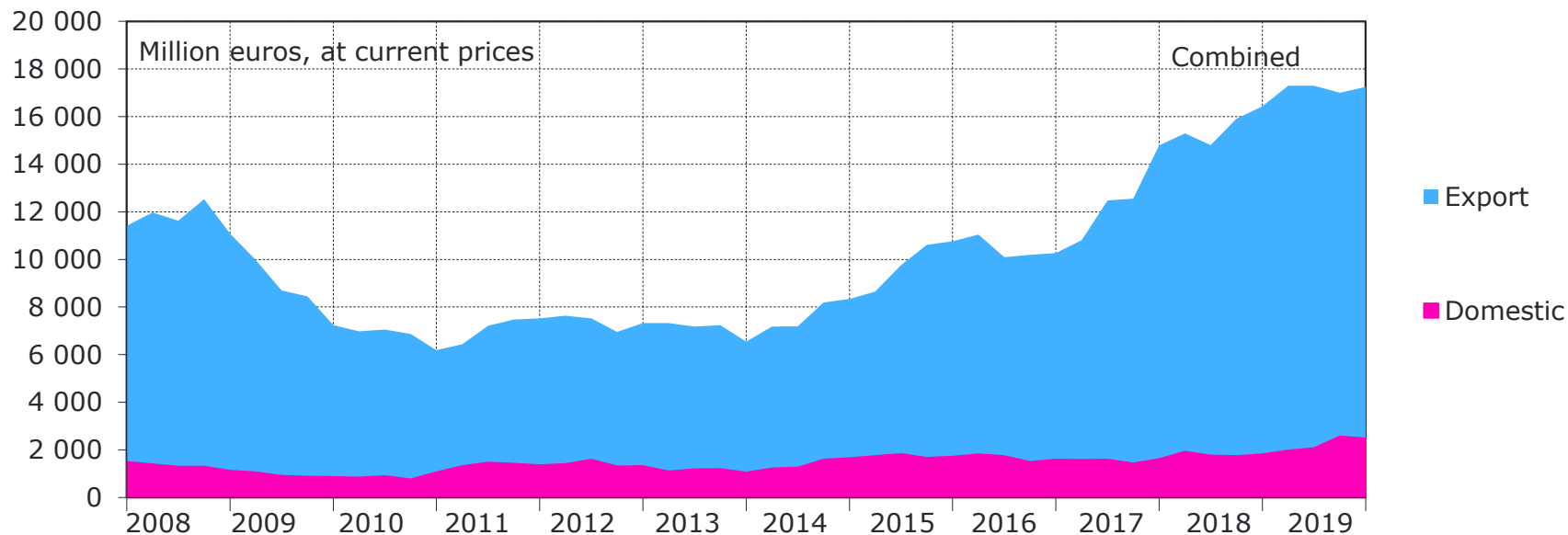
Change:	31.12.2019 / 31.12.2018	31.12.2019 / 30.9.2019
Export:	+35 %	+6 %
Domestic:	-2 %	+5 %
Combined:	+28 %	+6 %

# Value of New Orders in the Mechanical Engineering in Finland



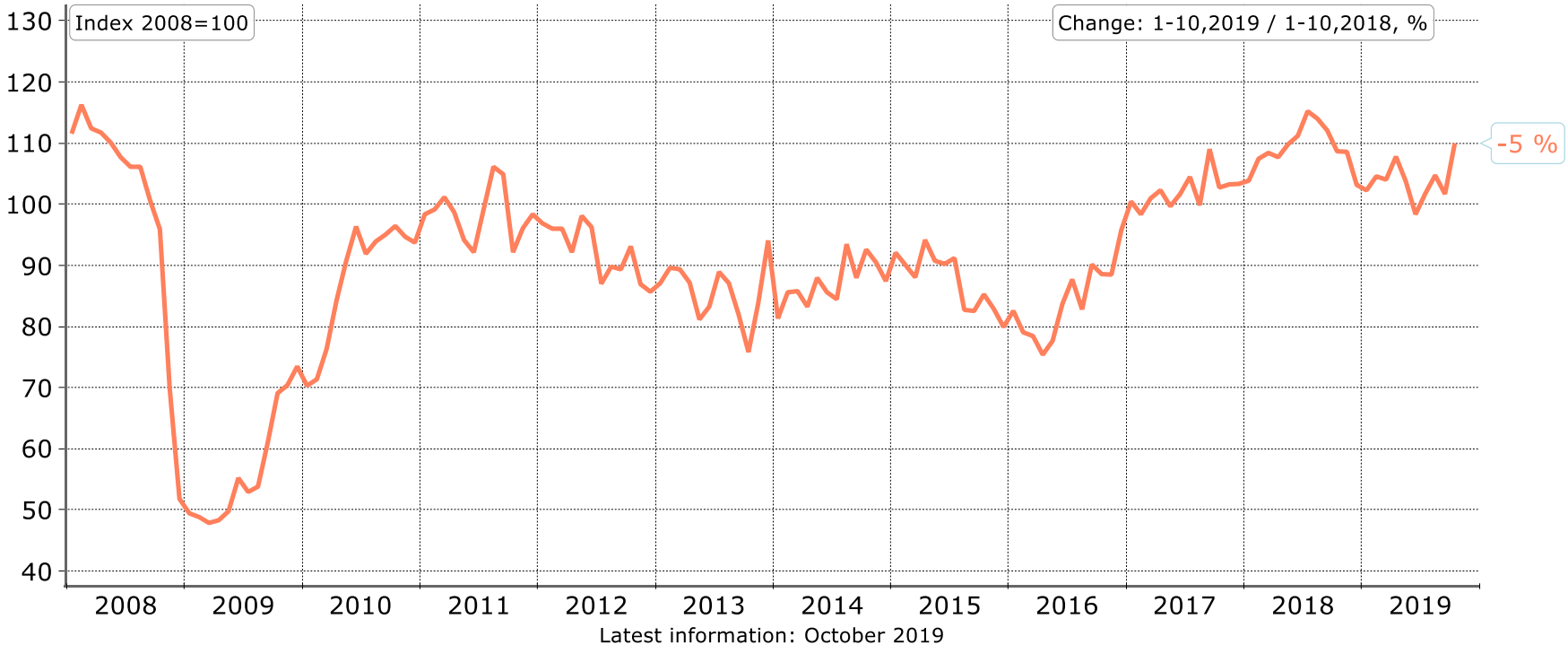
Change:	IV,2019 / IV,2018	IV,2019 / III,2019
Export:	+13 %	+47 %
Domestic:	-19 %	-42 %
Combined:	+7 %	+21 %

# Value of Order Books in the Mechanical Engineering in Finland



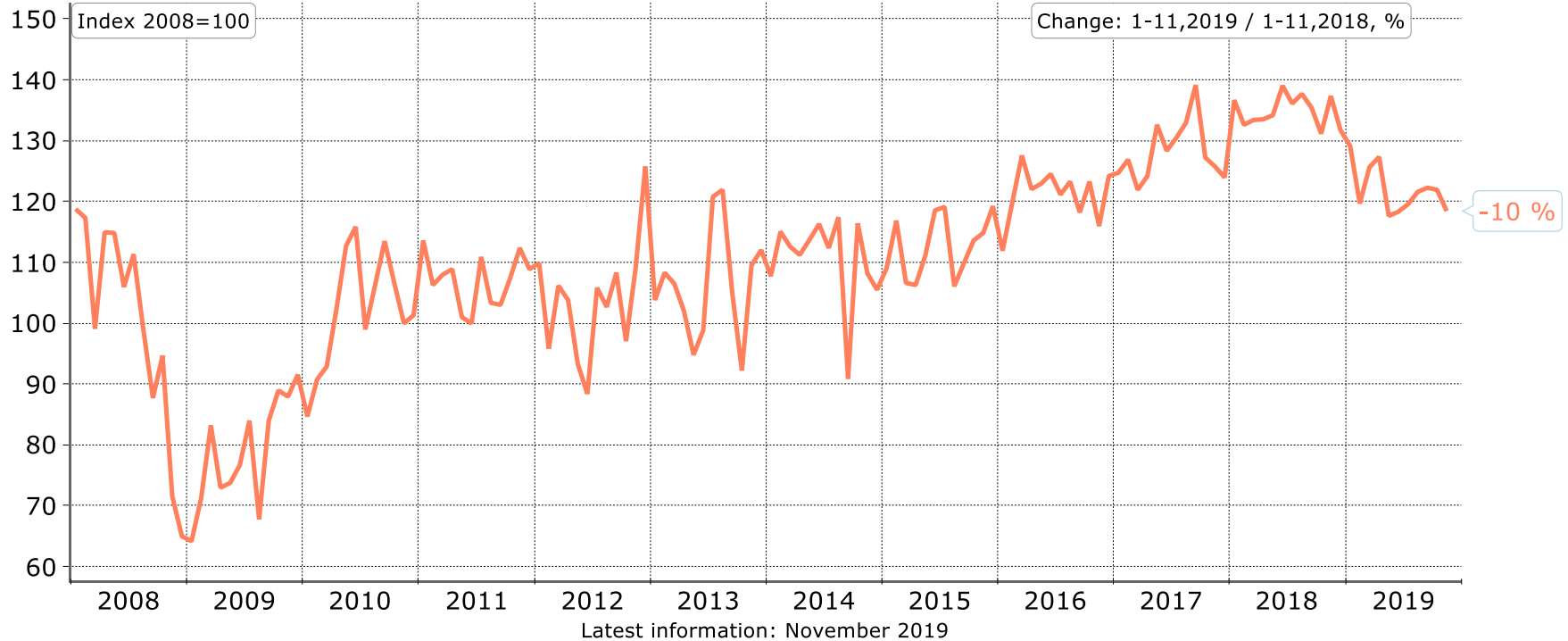
Change:	31.12.2019 / 31.12.2018	31.12.2019 / 30.9.2019
Export:	+1 %	+2 %
Domestic:	+36 %	-3 %
Combined:	+5 %	+1 %

# Turnover of the Metals Industry in Finland

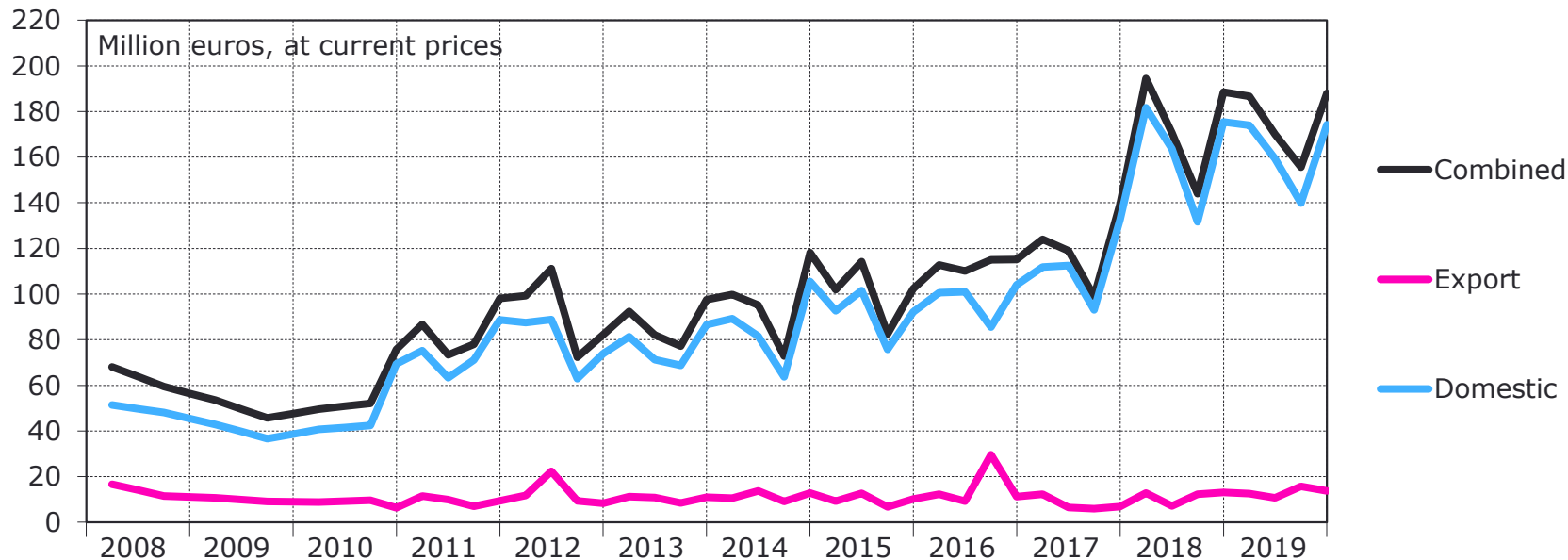




# Production Volume of the Metals Industry in Finland

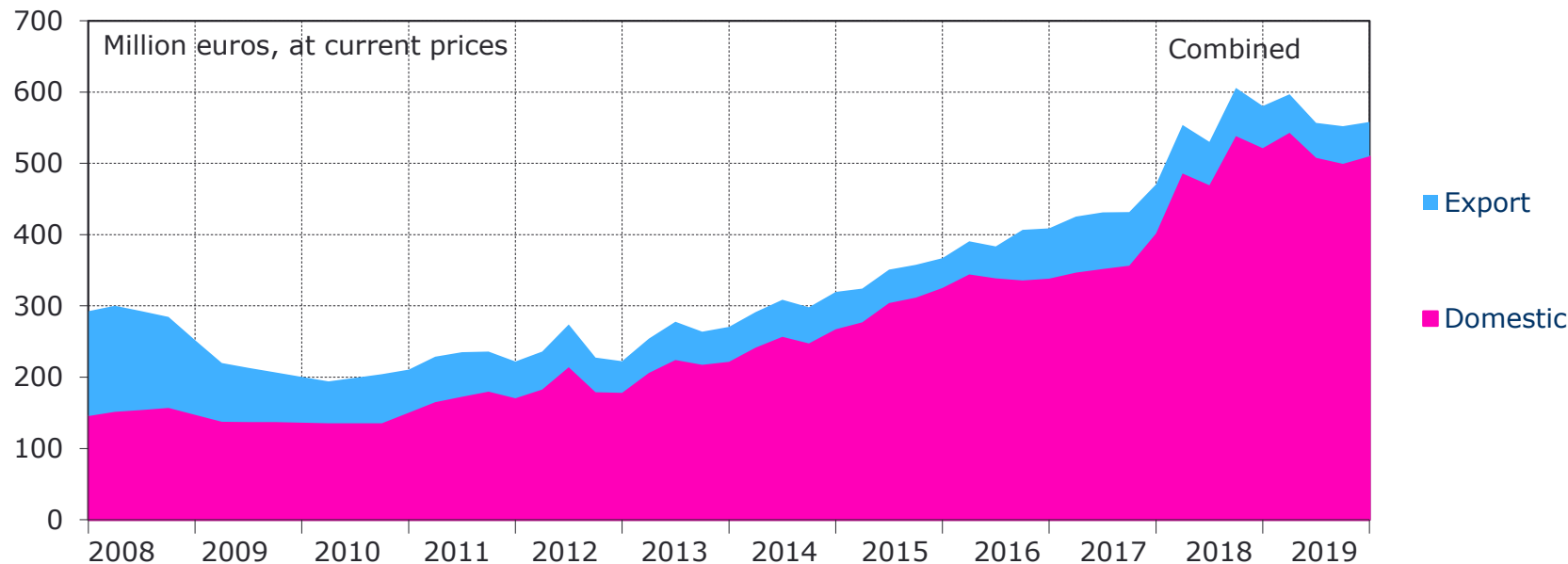


# Value of New Orders in the Consulting Engineering in Finland



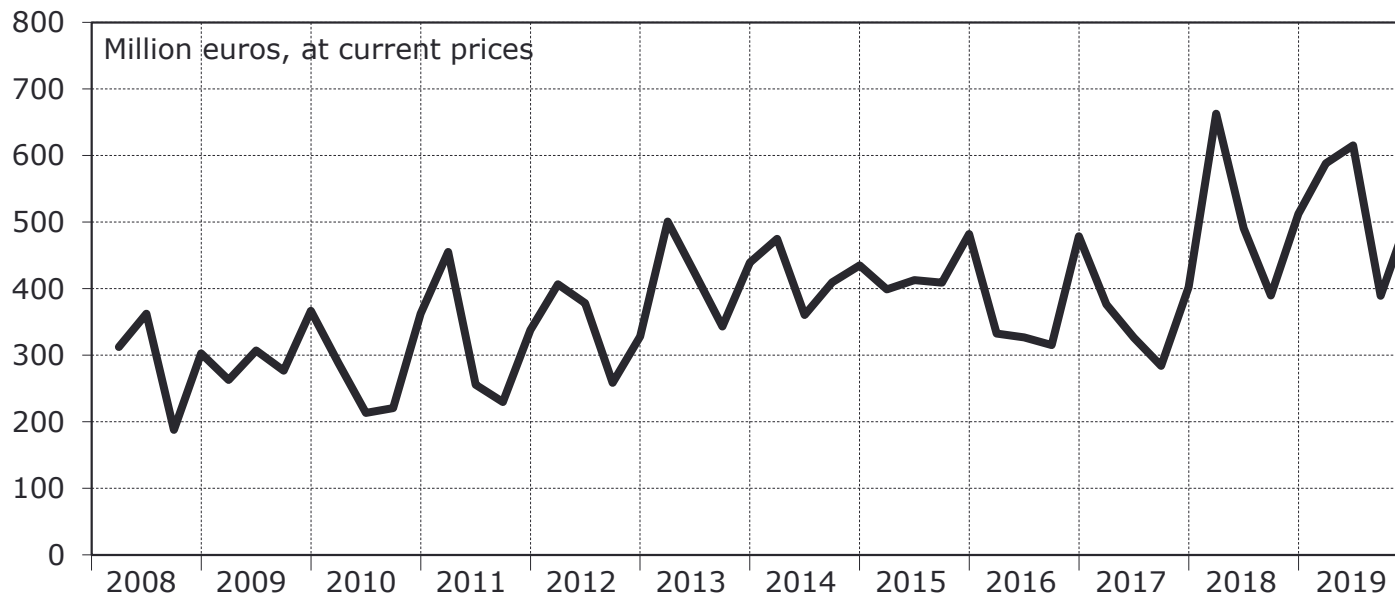
Change:	IV,2019 / IV,2018	IV,2019 / III,2019
Export:	+5 %	-13 %
Domestic:	+1 %	+25 %
Combined:	0 %	+21 %

# Value of Order Books in the Consulting Engineering in Finland



Change:	31.12.2019 / 31.12.2018	31.12.2019 / 30.9.2019
Export:	-18 %	-8 %
Domestic:	-2 %	+2 %
Combined:	-4 %	+1 %

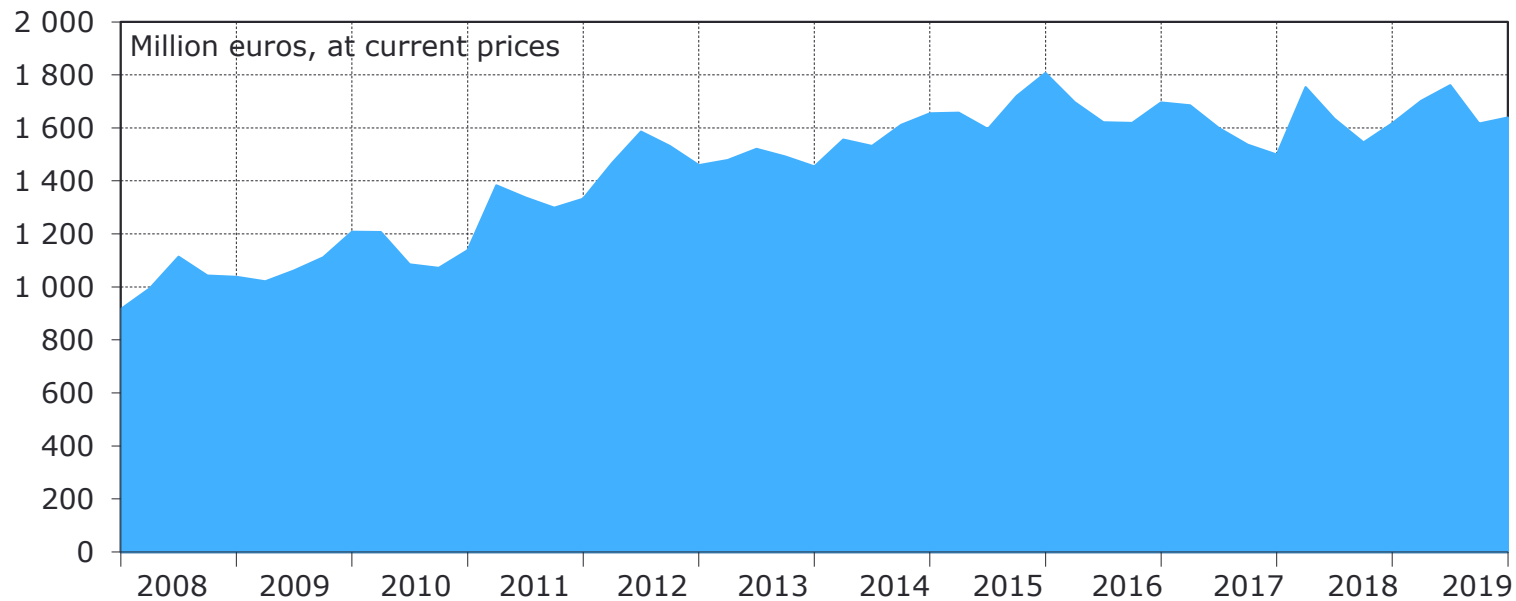
# Value of New Orders in the Information Technology\* in Finland



Change:	IV,2019 / IV,2018	IV,2019 / III,2019
Combined:	-1 %	+30 %

\*) Excl. game industry and data center companies

# Value of Order Books in the Information Technology\* in Finland



Change:	31.12.2019 / 31.12.2018	31.12.2019 / 30.9.2019
Combined:	+1 %	+1 %

\*) Excl. game industry and data center companies